

## A GRAPHICAL ANALYSIS OF 'O' AND 'B' TYPE STARS

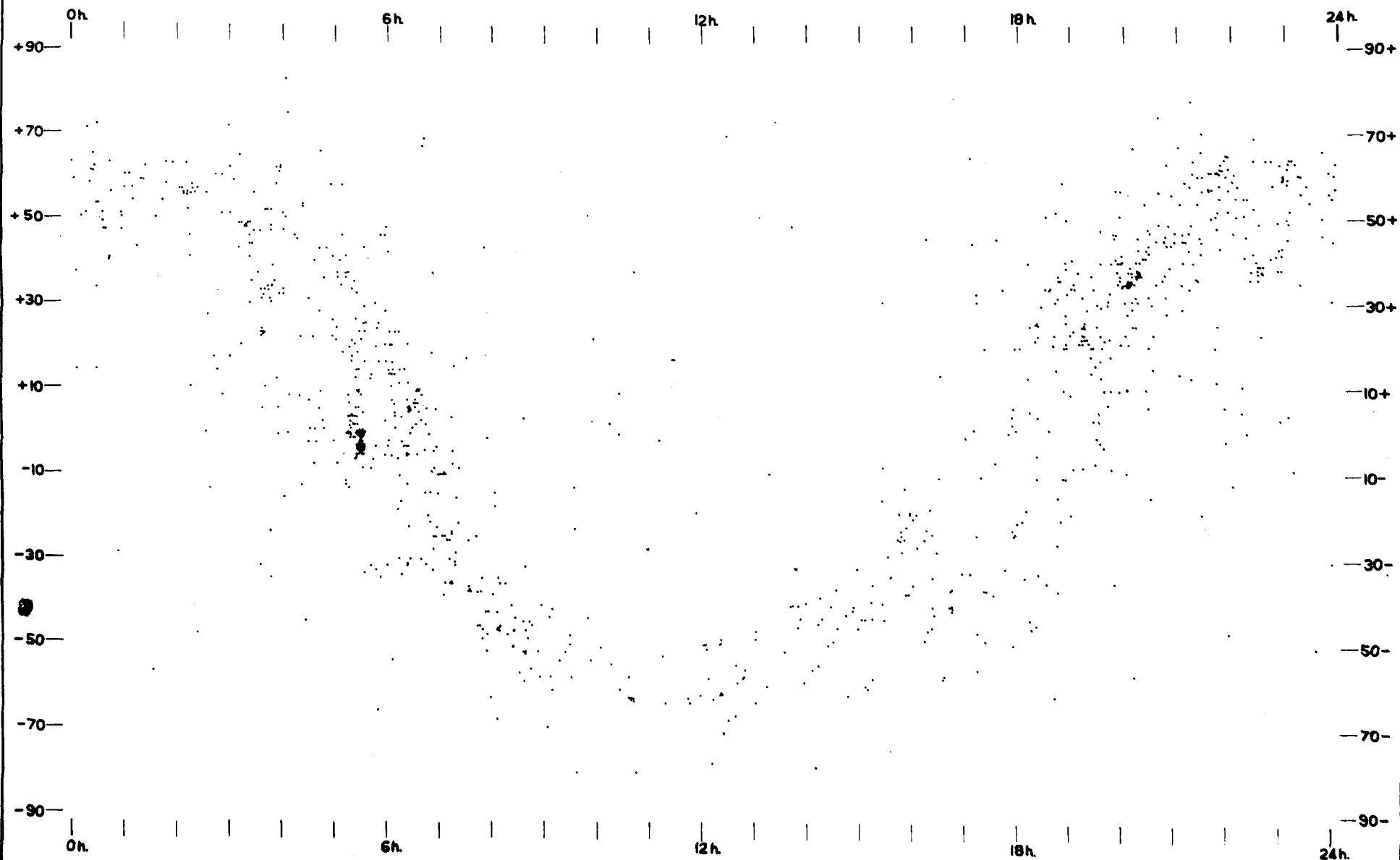
# **A GRAPHICAL ANALYSIS OF 'O' AND 'B' TYPE STARS**

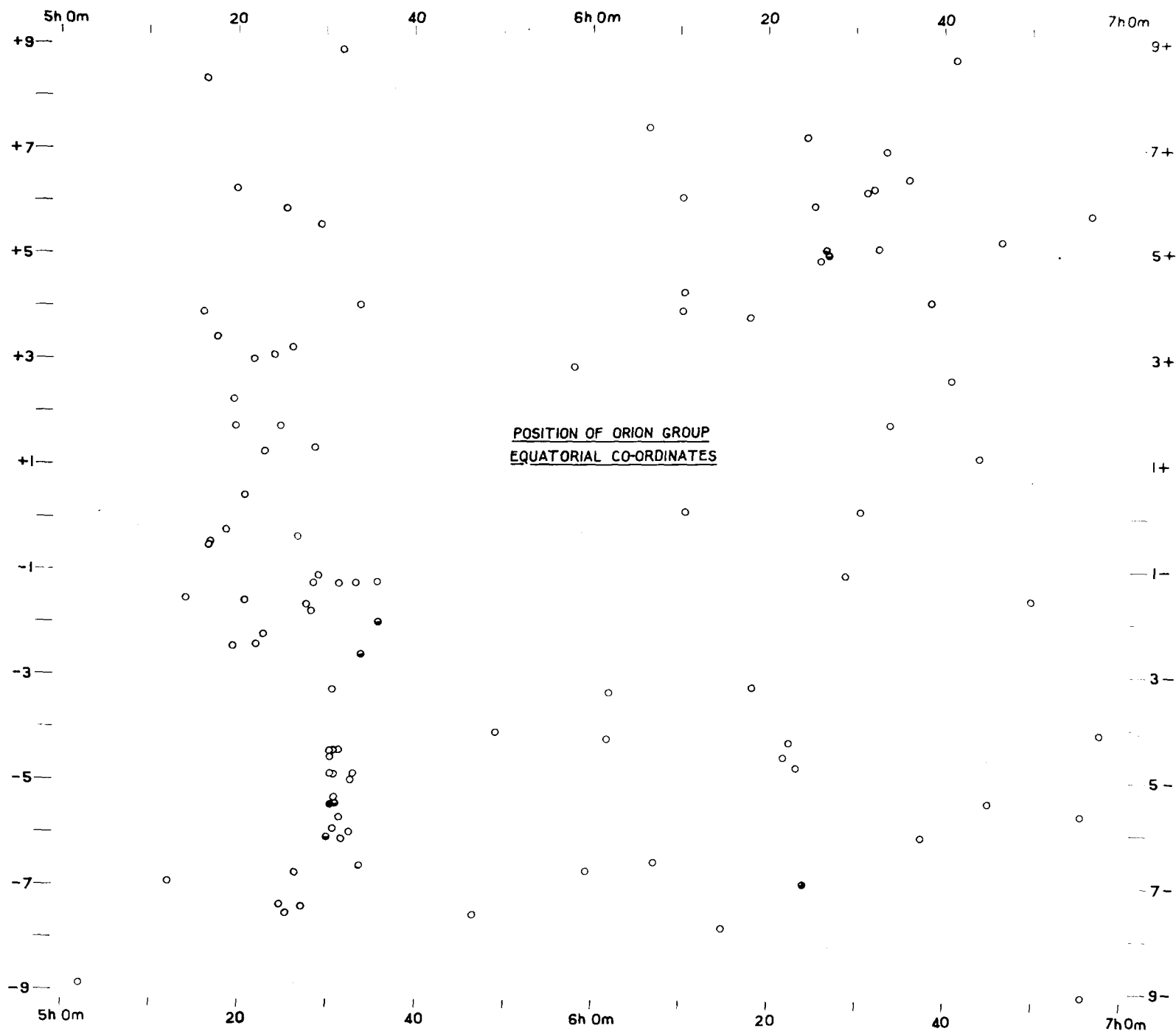
**An analysis of data contained in  
Volume V. Number 2 of the  
Publications of the Dominion Astrophysical Observatory**

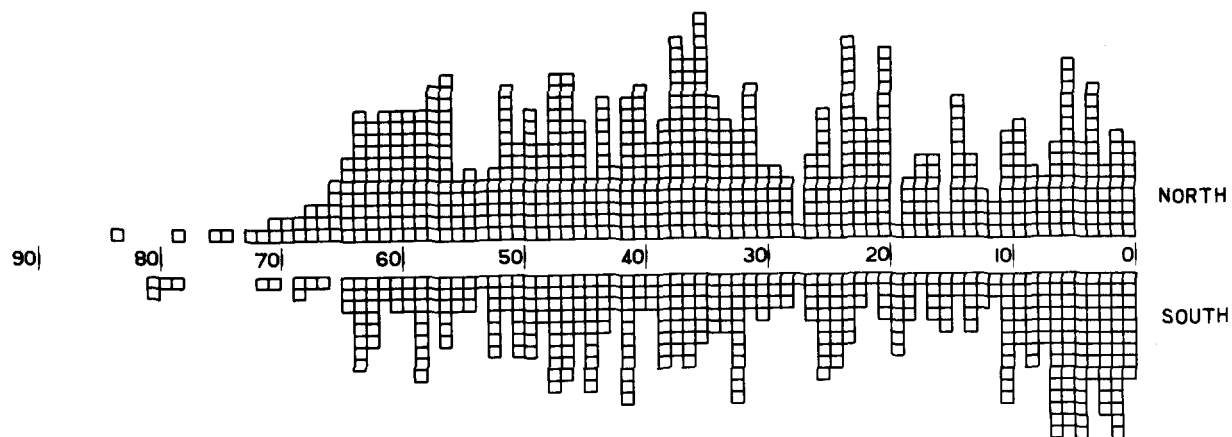
**"A Catalogue of the Radial Velocities of 'O' and 'B' Type Stars"  
by J.S.Plaskett and J.A.Pearce**

**R.S.Farmer**

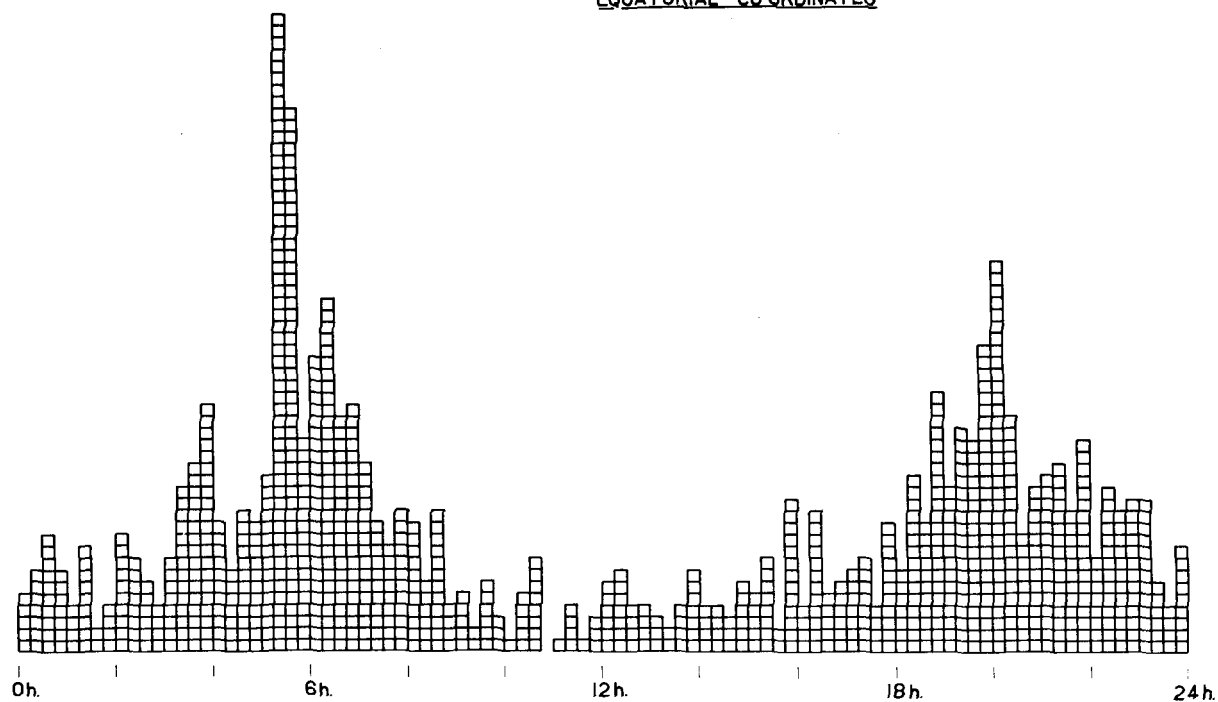
POSITION IN DECLINATION AND RIGHT ASCENSION  
EQUATORIAL CO-ORDINATES





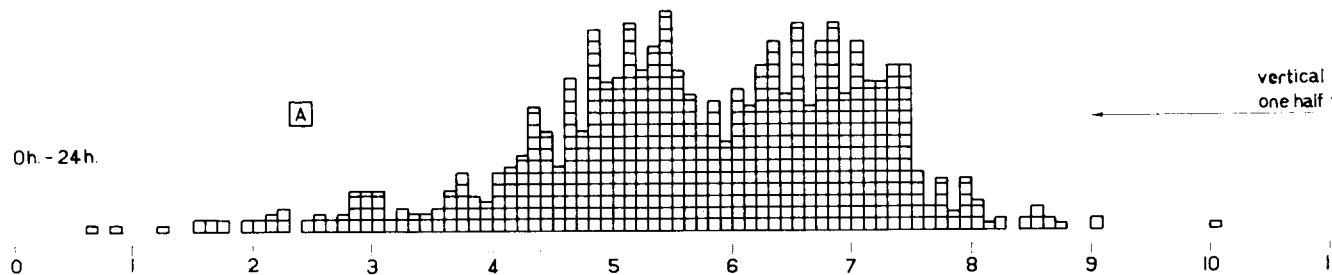


DISTRIBUTION IN DECLINATION AND RIGHT ASCENSION  
EQUATORIAL CO-ORDINATES

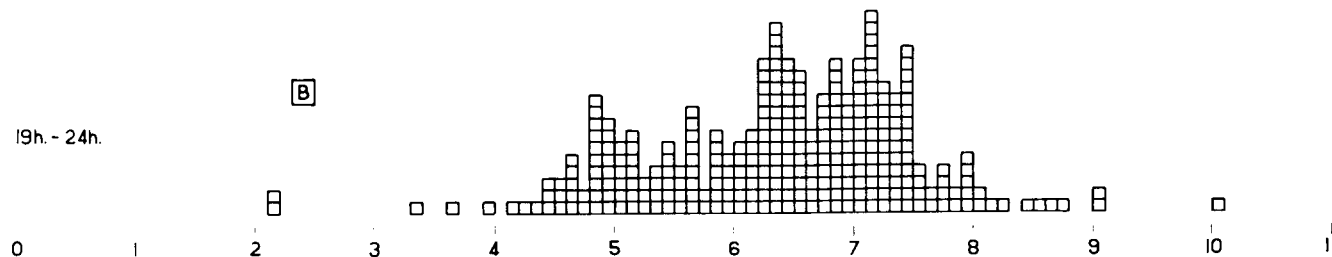


vertical scale of this graph is  
one half that of those below.

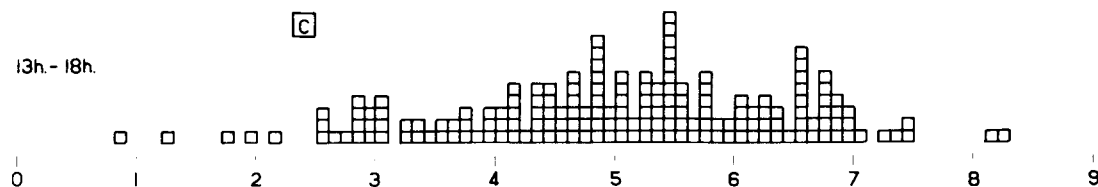
0h. - 24h.



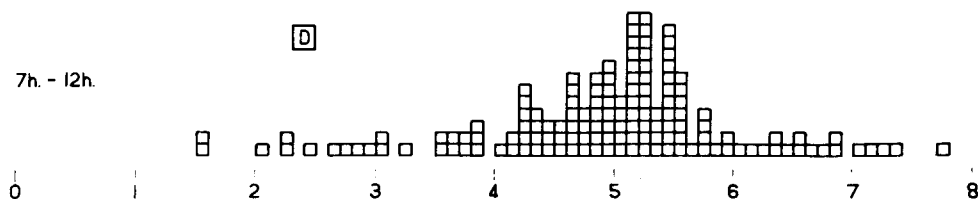
19h. - 24h.



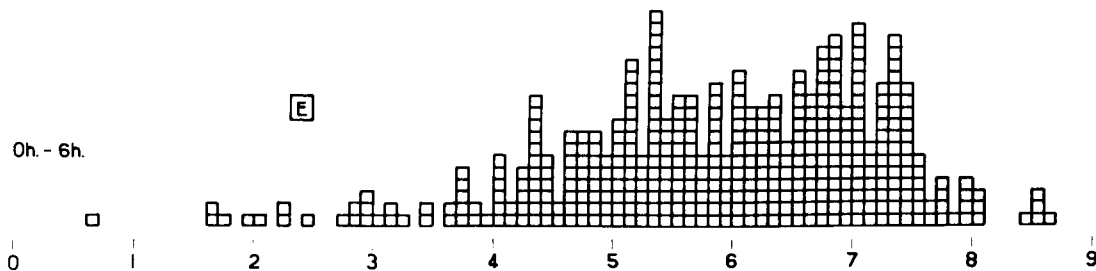
13h. - 18h.



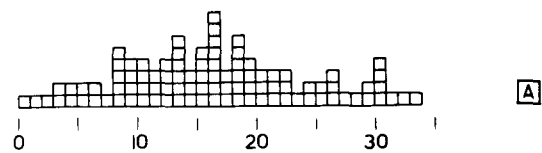
7h. - 12h.



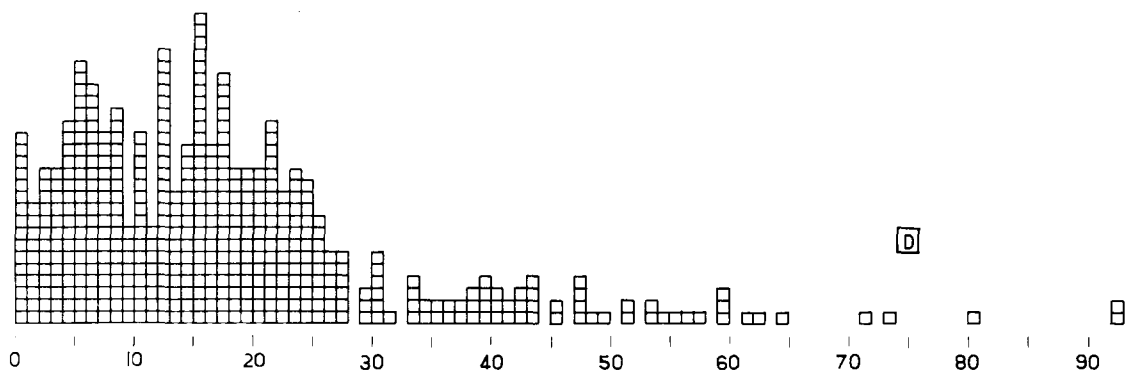
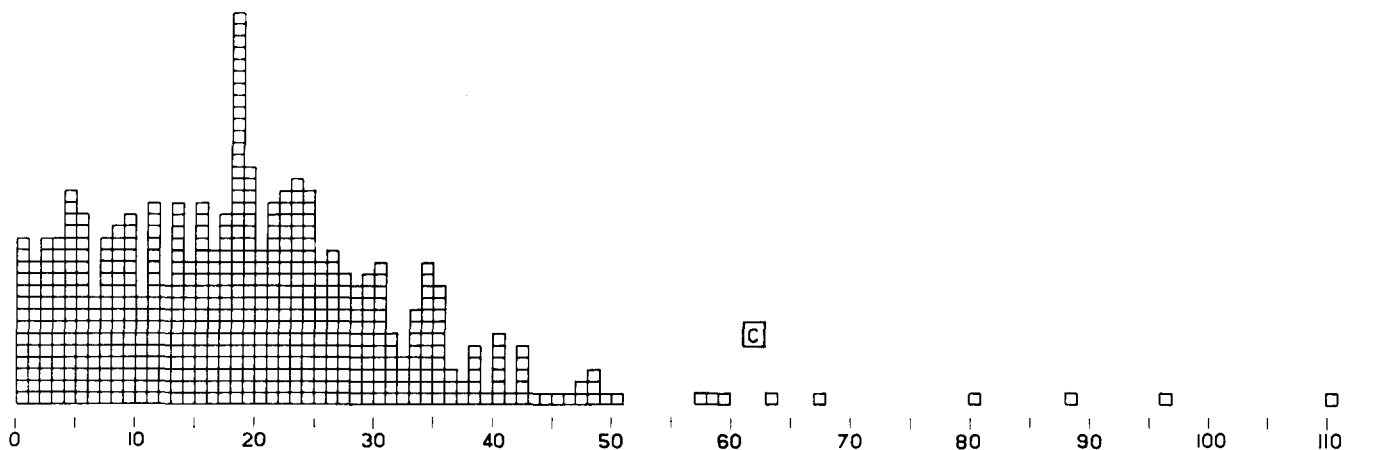
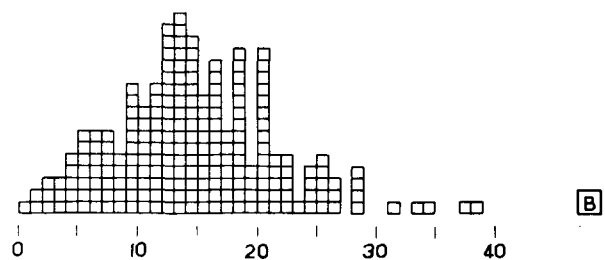
0h. - 6h.



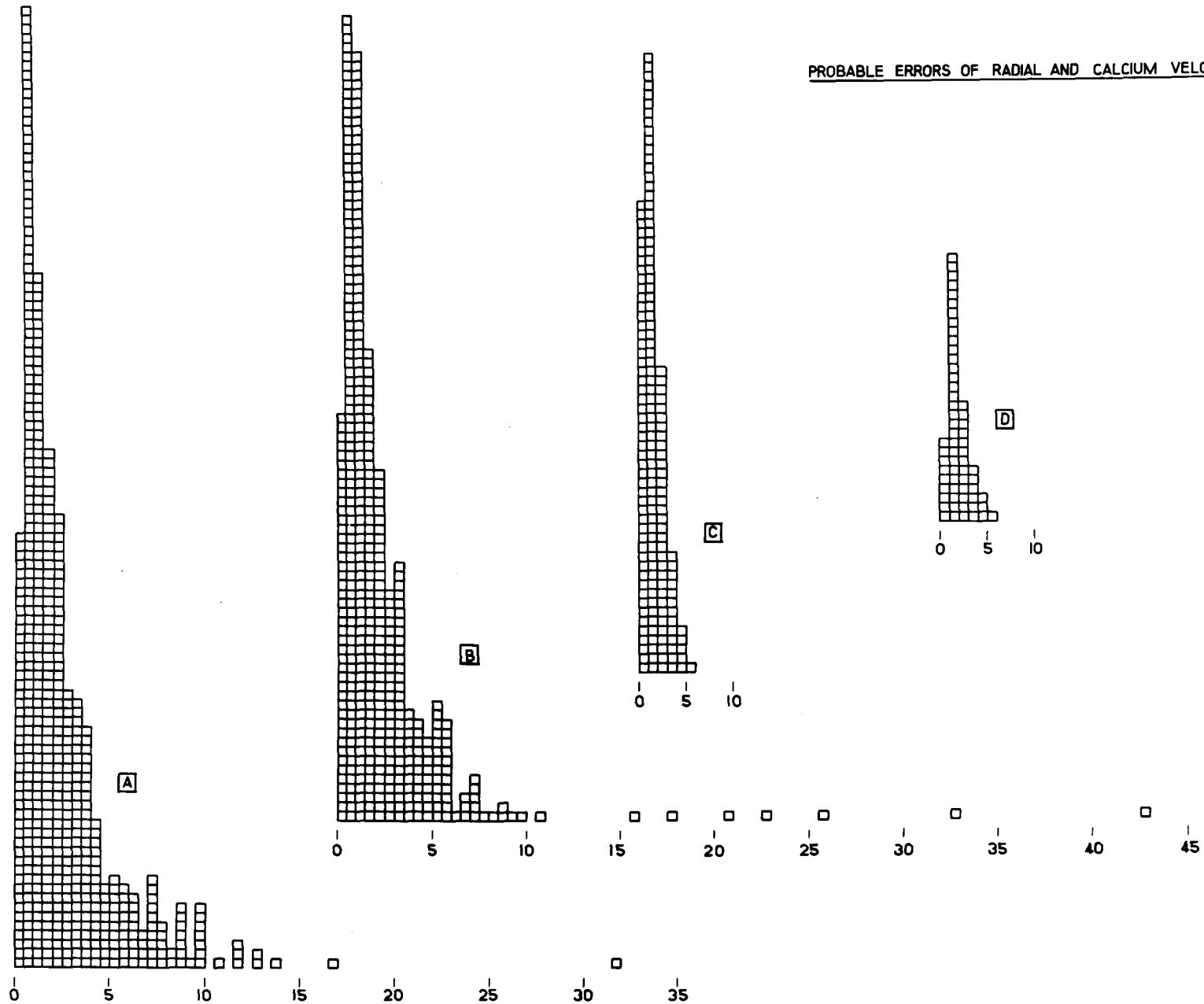
FREQUENCY DISTRIBUTION OF MAGNITUDES IN RIGHT ASCENSION  
EQUATORIAL CO-ORDINATES



STELLAR RADIAL VELOCITIES AND INTERSTELLAR CALCIUM VELOCITIES

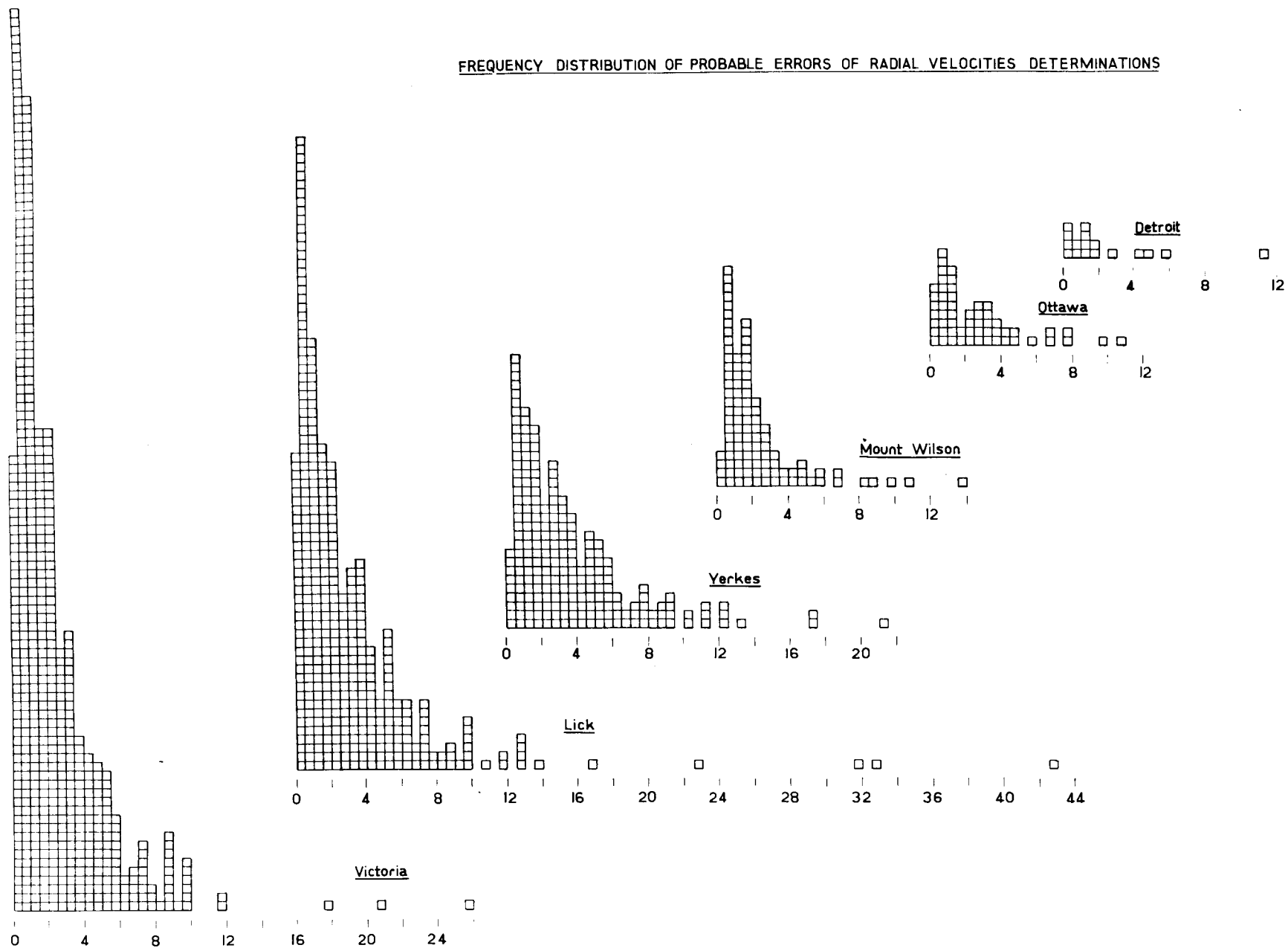


PROBABLE ERRORS OF RADIAL AND CALCIUM VELOCITIES





# FREQUENCY DISTRIBUTION OF PROBABLE ERRORS OF RADIAL VELOCITIES DETERMINATIONS



# LIGHT CURVE OF TT AURIGAE

5<sup>h</sup> 2<sup>m</sup> 8

+39° 27'

8.0 - 9.4 mag.

Mount Wilson Contribution No. 419

---

20 FOOT INTERFEROMETER BEAM

Mount Wilson Contribution No. 203

0.3  
0.4  
0.5  
0.6  
0.7  
0.8  
0.9  
1.0  
1.1  
1.2  
1.3  
1.4  
1.5

Semi-major axis of primary orbit \_\_\_\_\_ 3,600,000 km  
Semi-major axis of secondary orbit \_\_\_\_\_ 4,500,000  
Semi-major axis of relative orbit \_\_\_\_\_ 8,100,000  
Longer radius of large star \_\_\_\_\_ 3,100,000 (4.5  $\odot$ )  
Longer radius of small star \_\_\_\_\_ 2,800,000 (4.0)  
Shorter radius of large star \_\_\_\_\_ 2,600,000 (3.7)  
Shorter radius of small star \_\_\_\_\_ 2,300,000 (3.3)

Mass of large star \_\_\_\_\_ 6.7  $\odot$   
Mass of faint star \_\_\_\_\_ 5.3  
Density of large star \_\_\_\_\_ 0.11  $\odot$   
Density of faint star \_\_\_\_\_ 0.12  
Absolute magnitude of large star \_\_\_\_\_ 1.2 mag.  
Absolute magnitude of small star \_\_\_\_\_ 0.9  
Parallax \_\_\_\_\_ 0".001

# LIGHT CURVE OF TT AURIGAE

5<sup>h</sup> 27<sup>m</sup> 8      +39° 27'      8.0 - 9.4 mag

Standard comparison star BD 39° 1191      magnitude 8.02

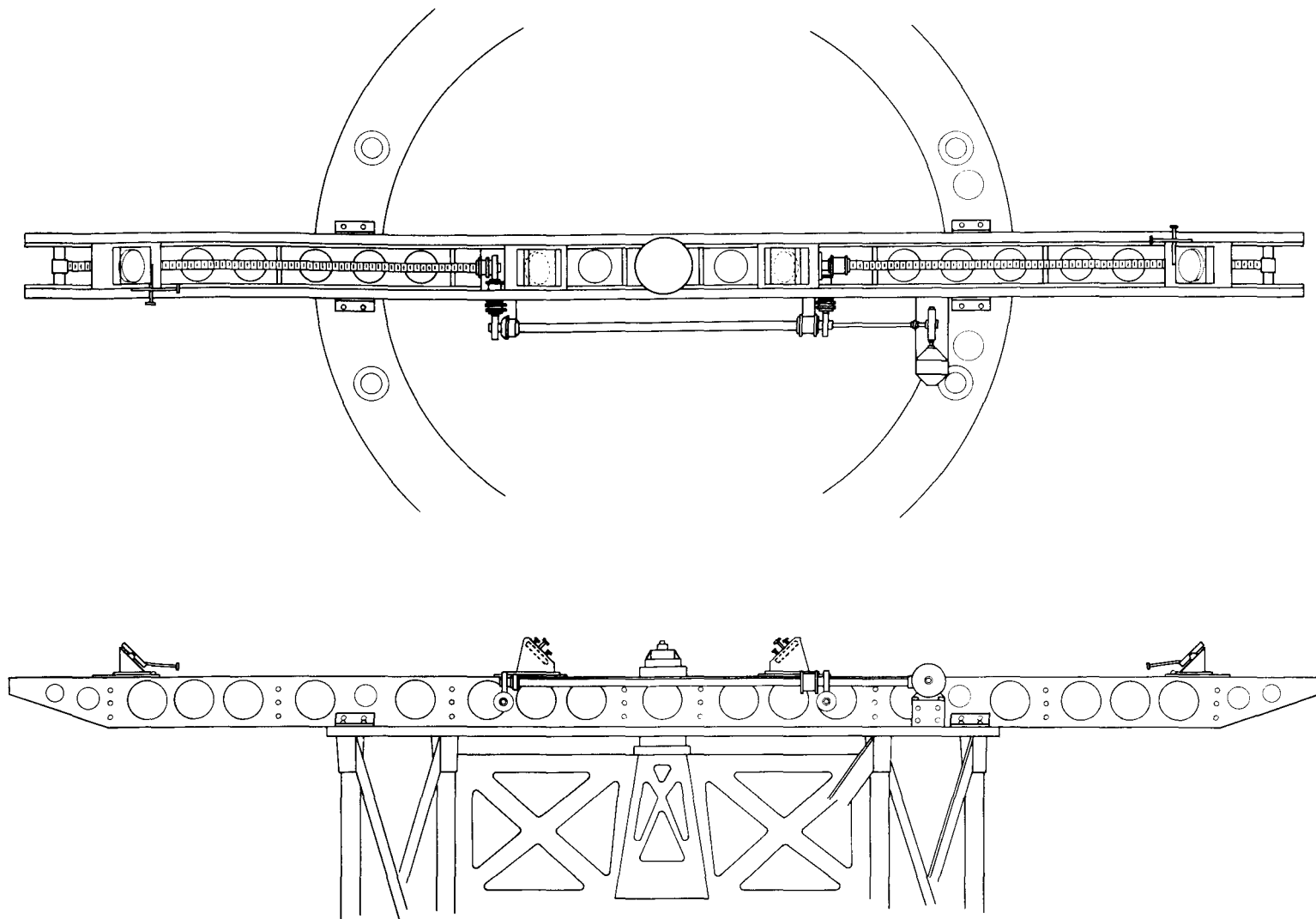
Scaled from photometric observations by Joy

Mount Wilson Contributions No. 419

## Scales

Time in days - horizontal - 0.01 d = 4 mm      Magnitude - vertical - 0.01 m = 3 mm  
+ unweighted observations      • weighted means

0      0.1      0.2      0.3      0.4      0.5      0.6      0.7      0.8      0.9      1.0      1.1      1.2      1.3



20 FOOT INTERFEROMETER BEAM

Contributions from Mount Wilson Observatory  
Number 203

# GALACTIC CO-ORDINATES

